# Women and schizophrenia

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PUBLISHED BY THE PRESS SYNDICATE OF THE UNIVERSITY OF CAMBRIDGE The Pitt Building, Trumpington Street, Cambridge, United Kingdom

CAMBRIDGE UNIVERSITY PRESS

The Edinburgh Building, Cambridge CB2 2RU, UK http://www.cup.cam.ac.uk 40 West 20th Street, New York, NY 10011–4211, USA http://www.cup.org 10 Stamford Road, Oakleigh, Melbourne 3166, Australia Ruiz de Alarcón 13, 28014 Madrid, Spain

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First published 2000

Printed in the United Kingdom at the University Press, Cambridge

Typeset in Minion 11/14.5 pt [v N]

A catalogue record for this book is available from the British Library

Library of Congress Cataloguing in Publication data

Women and schizophrenia / edited by David J. Castle, John McGrath, Jayashri Kulkarni.

p. cm.

Includes index.

ISBN 0 521 786177 (pb)

1. Schizophrenia. 2. Women – Diseases. 3. Women – Mental health. I. Castle, David J.

II. McGrath, John, 1958– III. Kulkarni, Jayashri, 1958–

[DNLM: 1. Schizophrenia. 2. Women. WM203 W872 2000]

RC514.W613 2000

616.89'82'0082-dc21 99-057083

ISBN 0 521 78617 7 paperback

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# Introduction and overview

John McGrath, David J. Castle and Jayashri Kulkarni

Weighing up the differences and commonalities between women with schizophrenia and men with schizophrenia, it would be fair to say that men and women with schizophrenia have more in common than they have points of distinction. Why then, edit a book about women with schizophrenia?

- Epidemiology, genetics and neuroscience highlight differences between men and women with schizophrenia that may illuminate causal mechanisms.
- Biological factors associated with being a woman can modify clinical outcomes in schizophrenia. This type of research may provide direction for developing improved treatments for the disorder.
- Clinicians need to be mindful that factors related to gender may have an impact on treatment choices.
- The impact of schizophrenia on women and their role in society warrant special attention. Gender modifies the impairment and disablement associated with schizophrenia. In turn, the interaction between this disablement and sociocultural factors results in particular handicaps for women with schizophrenia.

The aim of this book is to examine selected issues related to the interactions between schizophrenia and being female. One could equally write a book about the special issues for men with schizophrenia; however, the focus on women allows us to redress the relative lack of attention to the special needs of women. This book will be of interest to clinicians involved in the care of women with schizophrenia, students from the mental health professions, researchers and service planners.

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## **Overview of chapters**

Chapter 2 reviews issues related to the development, organization and degeneration of the human female brain which are relevant to schizophrenia. Much evidence has accumulated in the last two decades that suggests that subtle deviations in brain development may be associated with adult-onset psychoses. Sex hormones play an important role in the development of the brain, and expressly influence the definition of gender-specificity. Particular developmental and organizational parameters of the female brain might influence both susceptibility to, and expression of, schizophrenia. Similarly, the degenerative trajectory of the female brain differs from that of the male, and might explain the female preponderance in late-onset schizophrenia.

This chapter also provides an overview of differences between girls and boys in performance on certain neuropsychological tasks and outlines their differential susceptibility to, and expression of, mental disorders in child-hood and adolescence. This allows the further consideration of gender differences in schizophrenia to be placed in the wider developmental context.

Epidemiology can inform much of the debate regarding gender differences in schizophrenia and related disorders, and Chapter 3 summarizes selected aspects of the epidemiology of schizophrenia that are salient to women. One of the most consistent findings in schizophrenia research relates to the differences in age of onset between men and women. Furthermore, it is increasingly clear that age-at-onset curves for males and females are not isomorphic. Any coherent theory of schizophrenia must explain these findings.

Some of these key factors are returned to in Chapter 4, which expands the discussion by examining clinical aspects of schizophrenia in women. These include better premorbid functioning, more affective and less negative symptomatology and a more benign longitudinal course compared with males with schizophrenia. These issues again need to be incorporated into any explanatory model of gender differences in schizophrenia.

Chapter 5 provides a special focus on hormones and psychosis. This is an area with a long research history, but is one where only recently have methodologically sound studies been performed. Of particular interest are

reports of an association between estrogen levels and psychosis and the potential therapeutic benefit of estrogens in schizophrenia. Clinical guidelines for the use of adjunctive estrogens in this context are also provided.

Chapter 6 examines selected issues related to reproduction and antenatal care in women with schizophrenia. Opportunities exist to improve antenatal service to women with schizophrenia that could result in improved clinical outcomes for the mother and offspring. However, service providers need to follow through with services to assist mothers with schizophrenia. Some of the special issues related to motherhood are addressed in Chapter 7.

One of the motives for editing this book is the belief that a more explicit understanding of women's issues in schizophrenia can usefully inform treatment. Chapter 8 takes a broad approach to treatment issues for females with schizophrenia, encompassing biological, psychological and social domains. The chapter thus reflects upon, and provides a practical therapeutic response to, many of the issues raised elsewhere in the book.

The final chapter provides a summary of the defining features that have emerged with respect to women and schizophrenia, highlighting what is now at the 'cutting edge' of work in this area; these include brain imaging and molecular genetic research. This context provides an opportunity to delineate directions for future research into the causes of, and therapeutic implications for, gender differences in schizophrenia.

### **Caveats**

The chapters in this book are focused on women who have schizophrenia, but there are other related issues that link schizophrenia and women. For example, mothers of people with schizophrenia were cast as 'schizophrenogenic' by past research. While these theories are now discredited, there is evidence to show that obstetric complications in the mother can increase the risk of schizophrenia in the offspring. It is important that such knowledge results in better obstetric care for women with schizophrenia, rather than having as a consequence further pejorative labelling.

Another area that warrants mention is the role women play as informal carers for people with schizophrenia. This field of research has been neglected, but clinical experience in many societies suggest that mothers, wives and

daughters bear the brunt of providing disability support for their relative with schizophrenia. Mental health professionals need to acknowledge and validate the important roles women play in the care of those with schizophrenia. Service planners should examine ways to deliver support to assist women in these roles.

Women also provide professional care to individuals with schizophrenia, and many schizophrenia researchers are women. It seems that in many countries there are gender imbalances that shift across the spectrum of health care (e.g. nurses, doctors, case managers, team leaders, academics, bureaucrats). We need to remain mindful that these imbalances may subtly distort clinical and research perspectives.

We urge the reader to exercise caution in the application of any treatment recommendations contained in this book. It is becoming increasingly apparent that clinicians need an evidence base that can rapidly incorporate new knowledge – textbooks can provide the best available evidence at the time of writing, but it is probable that some of the treatment recommendations will very quickly be out of date.

In conclusion, we hope that this book provides information that can translate into both immediate and longer-term gains for women with schizophrenia. It is clear that there are gaps in current services that can be addressed in the short term. We also hope that gender issues can act as a prism through which we can refract the 'light' of schizophrenia into its component parts, and that researchers can eventually use this knowledge to reduce the incidence of, and disability associated with, this group of disorders.